

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
4 September 2003 (04.09.2003)

PCT

(10) International Publication Number
WO 2003/073244 A3

(51) International Patent Classification⁷: H03K 23/66, 21/10

(21) International Application Number:
PCT/US2002/041658

(22) International Filing Date:
20 December 2002 (20.12.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/084,566 27 February 2002 (27.02.2002) US

(71) Applicant: ADVANCED MICRO DEVICES, INC.
[US/US]; One AMD Place, Mail Stop 68, P.O. Box 3453,
Sunnyvale, CA 94088-3453 (US).

(72) Inventors: MADRID, Philip, E.; 16642 Cordillera Drive,
Round Rock, TX 78681 (US). MEYER, Derrick, R.; 2728
Creeks Edge Parkway, Austin, TX 78733 (US).

(74) Agent: DRAKE, Paul, S.; Advanced Micro Devices, Inc.,
5204 East Ben White Boulevard, Mail Stop 562, Austin,
TX 78741 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG,
SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU,
ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK,
TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

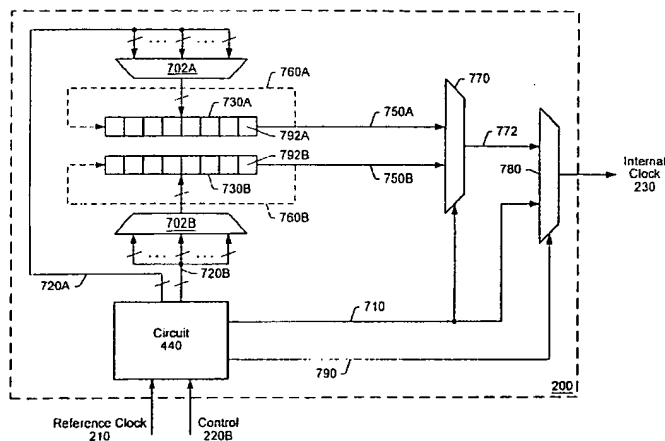
Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
1 July 2004

[Continued on next page]

(54) Title: FREQUENCY DIVIDER



(57) Abstract: A method and mechanism for generating a clock signal with a relatively linear increase or decrease in clock frequency. A first clock signal is generated with a first frequency which is then used to generate a second clock signal with a second frequency. The second frequency is generated by dropping selected pulses of the first clock signal. Particular patterns of bits are stored in a storage element. Bits are then selected and conveyed from the storage element at a frequency determined by the first clock signal. The conveyed bits are used to construct the second clock signal. By selecting the particular pattern of bits selected and conveyed, the frequency of the second clock signal may be determined. Further, by changing the patterns of bits within the registers at selected times, the frequency of the second clock signal may be made to change in a relatively linear manner.

Best Available Copy

WO 2003/073244 A3



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Best Available Copy